

REMARKS

A Request for Continued Examination is being filed concurrently with the present Amendment B.

Upon entry of the present amendment, claims 1-21 are pending in the application. Of these, claims 1, 11, 20 and 21 are independent. New claim 21 is added herein.

Claims 1, 11 and 20 have each been amended to more particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant respectfully submits that all the amendments are supported by the original application, and that no new matter has been introduced thereby.

The above-identified Office Action has been reviewed, the references carefully considered, and the Examiner's comments carefully weighed. In view thereof, the present Amendment is submitted. It is contended that by the present amendment and arguments, all bases of rejection set forth in the Office Action have been traversed and overcome. Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

Claim Rejections – Section 102 Issues

On page 2 of the Office Action, the Examiner rejected claims 1, 2, 8, 9, and 20 under 35 USC 102(b) as anticipated by Glovatsky et al., US Pat. No. 6,186,106.

Applicant disagrees with, and traverses, the rejection of claim 20. With respect to the rejection of claim 20, Glovatsky does not disclose a one piece shield cover that interconnects the intake pipes of the intake manifold as claimed. All disclosed embodiments of Glovatsky provide an apparatus for routing signals which conforms in shape with a top surface of a manifold and is removably attachable to the upper surface of the intake manifold, but does not interconnect the

intake pipes of the intake manifold. In contrast, the applicant claims a one piece shield cover that interconnects the intake pipes of the intake manifold, as described in the specification at paragraphs 79-83 and shown in Fig. 10.

With respect to claim 1, the applicant agrees that Glovatsky anticipates the limitations of claim 1, as broadly claimed. However, the applicant disagrees that Glovatsky anticipates the applicant's invention as disclosed but not claimed. Therefore, Claim 1 has been amended herein to more clearly define the applicant's invention. In particular, claim 1 is amended to specify that that electrically conductive material is sandwiched between the shield cover and the engine body to provide an electrical connection between the shield cover and the engine body. Glovatsky does not disclose electrically grounding the shield cover. Although the Examiner states on 5 of the Office Action that grounding a metal cover would be inherent, the applicant disagrees since such grounding could provide a short circuit with an electronic component 114 or circuit trace 108 form on an upper surface of the substrate 102 if the cover 112 were to come into contact therewith. Moreover, the structural limitation describing the way in which the shield is grounded to the engine body, that is, of sandwiching an electrically conductive material between the shield cover and the engine body, is clearly not disclosed by Glovatsky.

Claim 2, 8, and 9 depend from claim 1 and therefore incorporate all changes made to claim 1.

As discussed above, claims 1, 2, 8, 9 and 20 overcome the rejection under 35 USC 102(b). Applicant respectfully requests reconsideration and withdrawal of the rejection.

Claim Rejections – Section 103 Issues

On page 3 of the Office Action, the Examiner rejected claims 3-5 under 35 USC 103(a)

as unpatentable over Glovatsky et al in view of Uchida, US Pat. No. 5,630,386. The Examiner states that Glovatsky discloses all the features except the shape and orientation of the runners of the manifold, but that Uchida discloses runners which comprise an arcuately curved intake pipe, and a rearwardly curving conning pipe having outwardly flared pickup ends.

Upon careful consideration applicant respectfully traverses these rejections, and submits that in light of the current amendment to claim 1, from which claims 3-5 depend, claims 3-5 are patentable over Glovatsky and Uchida. Moreover, although the applicant agrees that Uchida discloses arcuately curved intake pipes 142, and also disclose connecting portions having outwardly flared pickup ends, the applicant respectfully disagrees that the connecting portions curve rearwardly within the plenum, as recited in applicant's claim 5. Uchida clearly shows connecting portions curving downwardly and inwardly toward the centerline of the engine, rather than rearwardly of the engine as claimed, in Fig. 2.

On page 3 of the Office Action, the Examiner rejected claim 6 under 35 USC 103(a) as unpatentable over Glovatsky et al in view of Uchida, and further in view of Brackett, US Pat. No. 5,560,327. The Examiner states that Glovatsky and Uchida disclose all claimed features except the configuration in which the cylinder bores are opposed and sandwich a crankshaft, which is supported on a crankcase and wherein the intake plenum is disposed above the crankcase, but that Brackett teaches that this configuration is old in the art.

The applicant respectfully submits that the deficiencies of Glovatsky with respect to claim 1 as amended herein, and from which claim 6 depends, are not cured by the modification of Brackett. The applicant therefore requests reconsideration and withdrawal of this ground of rejection.

On page 4 of the Office Action, the Examiner rejected claim 7 as unpatentable over Glovatsky et al in view of Croft et al, US Pat. No. 3,814,069. The Examiner states that Glovatsky discloses all claimed features except a sensor for detecting a condition in the intake plenum extending from the control unit through a side wall into the intake plenum, but that Croft teach that it is old in the art to employ a pressure sensor 29 extending through a sidewall into an intake plenum 12.

The applicant respectfully submits that the deficiencies of Glovatsky with respect to claim 1 as amended herein, and from which claim 7 depends, are not cured by the modification of Croft. In addition, the applicant disagrees that Croft discloses an electronic control unit attached to an outer face of a side wall of the intake plenum, as claimed. In particular, the figures of Croft show the control system in schematic form, with the implication that the control unit is located distantly with respect to the plenum housing. Because the combination of Glovatsky and Croft do not disclose or suggest all recited features, the applicant therefore requests reconsideration and withdrawal of this ground of rejection.

Also on page 4 of the Office Action, the Examiner rejected claim 10 as unpatentable over Glovatsky since the Examiner considers than it would be obvious to provide an air cleaner operatively connected to the throttle body since such a configuration is conventional in the engine art.

The applicant respectfully submits that the deficiencies of Glovatsky with respect to claim 1 as amended herein, and from which claim 10 depends, are not cured by the modification of Glovatsky to include an air cleaner. The applicant therefore requests reconsideration and

withdrawal of this ground of rejection.

On page 5 of the Office Action, the Examiner rejected claims 11, 13, and 17-19 under 35 USC 103(a) as unpatentable over Glovatsky et al. in view of Brackett. The Examiner states that Glovatsky discloses all claimed features except the configuration in which the cylinder bores are opposed and sandwich a crankshaft, which is supported on a crankcase and wherein the intake plenum is disposed above the crankcase, but that Brackett teaches that this configuration is old in the art. With respect to claim 11, the Examiner notes that the limitation reciting that a ground connector electrically connects the shield cover to the engine body would be obvious in view of Glovatsky since it is inherent to ground a metal cover to an engine.

The applicant respectfully disagrees with this rejection. Glovatsky does not disclose electrically grounding the shield cover. Although the Examiner states that grounding a metal cover would be inherent, the applicant disagrees since such grounding could provide a short circuit with an electronic component 114 or circuit trace 108 form on an upper surface of the substrate 102 if the cover 112 were to come into contact therewith. Moreover, the structural limitation describing the way in which the shield is grounded to the engine body, that is, of sandwiching an electrically conductive material between the shield cover and the engine body, is clearly not disclosed by Glovatsky. Thus, the applicant has amended claim 11 herein to more clearly recite the way in which the shield is grounded to the engine body.

Upon careful consideration applicant respectfully traverses such rejections, and submits that claims 11, 13, and 17-19 are patentable over Glovatsky et al. and Brackett.

Claim 11 has been amended in order to more particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, claim 11 has been

amended to specify that the shield cover includes a metallic plate, and that the engine includes a ground connector electrically connecting the shield cover to said engine body. Claim 11 has also been amended to specify that the plurality of electric parts surrounding the plenum include a plurality of fuel injectors and a plurality of ignition coils, and to further specify that the shield cover is provided in a size and shape sufficient to protectively cover all of said fuel injectors and ignition coils.

As regards the rejections of claims 13 and 17-19, the applicant respectfully submits that the deficiencies of Glovatsky with respect to claim 11 as amended herein, and from which claims 13 and 17-19 depend, are not cured by the modification of Glovatsky to include the structure disclosed by Brackett. The applicant therefore requests reconsideration and withdrawal of this ground of rejection.

On page 5 of the Office Action, the Examiner rejected claim 12 under 35 USC 103(a) as unpatentable over Glovatsky et al. in view of Brackett, and further in view of Croft et al.

The Examiner states that Glovatsky discloses all claimed features except a sensor for detecting a condition in the intake plenum extending from the control unit through a side wall into the intake plenum, but that Croft teach that it is old in the art to employ a pressure sensor 29 extending through a sidewall into an intake plenum 12.

The applicant respectfully submits that the deficiencies of Glovatsky with respect to claim 11 as amended herein, and from which claim 12 depends, are not cured by the modification of Croft. In addition, the applicant disagrees that Croft discloses an electronic control unit attached to an outer face of a side wall of the intake plenum, as claimed. In particular, the

figures of Croft show the control system in schematic form, with the implication that the control unit is located distantly with respect to the plenum housing. Because the combination of Glovatsky and Croft do not disclose or suggest all recited features, the applicant therefore requests reconsideration and withdrawal of this ground of rejection.

On page 6 of the Office Action, the Examiner rejected claims 14-16 as unpatentable over Glovatsky et al. in view of Brackett, and further in view of Uchida. The Examiner states that Glovatsky, as modified by Brackett, discloses all the features except the shape and orientation of the runners of the manifold, but that Uchida discloses runners which comprise an arcuately curved intake pipe, and a rearwardly curving conning pipe having outwardly flared pickup ends.

Upon careful consideration applicant respectfully traverses these rejections, and submits that the deficiencies of Glovatsky as modified by Brackett with respect to claim 11 are not cured by the further modification by the teachings of Uchida. Thus, claims 14-16, which depend from claim 11, also avoid rejection. Moreover, although the applicant agrees that Uchida discloses arcuately curved intake pipes 142, and also disclose connecting portions having outwardly flared pickup ends, the applicant respectfully disagrees that the connecting portions curve rearwardly within the plenum, as recited in applicant's claim 16. Uchida clearly shows connecting portions curving downwardly and inwardly toward the centerline of the engine, rather than rearwardly of the engine as claimed, in Fig. 2. Because the combination of Glovatsky, Brackett, and Uchida do not disclose or suggest all recited features, the applicant therefore requests reconsideration and withdrawal of this ground of rejection.

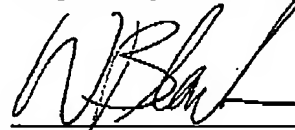
The Commissioner is hereby authorized to charge \$200.00 for one independent claim in excess of three, as well as to charge any deficiency which may be required during the entire pendency of the application, and to credit any excess paid during the entire pendency of the application, to Deposit Account 50-0744 in the name of Carrier, Blackman & Associates, P.C.

A duplicate copy of this sheet is enclosed.

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Favorable consideration is respectfully requested.

Respectfully submitted,

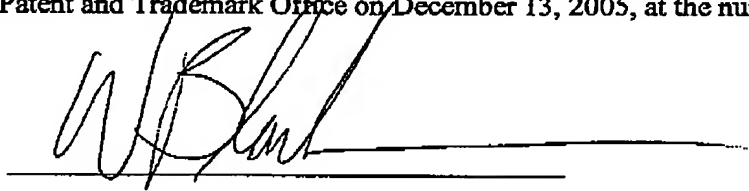


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December 13, 2005

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Other Matters

The applicant has added new claim 21 herein which is similar to the previously presented version of claim 1, and which includes the further limitation of the unitary shield cover comprising an electrical interference shield providing a barrier which resists passage of external electromagnetic waves therethrough, in order to protect said plurality of electric parts. This feature is not disclosed or anticipated by Glovatsky, who does not even disclose an electrical grounding of the electronics routing apparatus cover 112, or by Glovatsky as modified by the prior art. Therefore, Claim 21 should be allowed over the art of record.

CONCLUSION

In conclusion, applicant has overcome the Examiner's objections and rejections of record. Applicant respectfully submits that the engine including an interference shield as defined by the present claims is believed to be allowable over all of the prior art of record, considered either individually or in any reasonable combination thereof. No new matter is being added by the present amendment.

The Commissioner is hereby authorized to charge \$200.00 for one independent claim in excess of three, as well as to charge any deficiency which may be required during the entire pendency of the application, and to credit any excess paid during the entire pendency of the application, to Deposit Account 50-0744 in the name of Carrier, Blackman & Associates, P.C.

A duplicate copy of this sheet is enclosed.

Favorable consideration is respectfully requested.

Respectfully submitted,



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